

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1-21 (cancelled)

22. (currently amended) A multilayer printed circuit board for use in a radio frequency communication system, said multilayer printed circuit board comprising:

a first conductive layer having a first conductive trace formed thereon terminating at a first via pad;

a second conductive layer having a second conductive trace formed thereon terminating at a second via pad;

an interconnection structure comprising:

a signal conductor via connected at a first end to said first conductive trace by said first via pad and connected at a second end to said second conductive trace by said second via pad, wherein said signal conductor via propagates electrical signals between said first conductive trace on said first conductive layer and said second conductive trace on said second conductive layer; and

a plurality of ground vias surrounding said signal conductor via, said plurality of ground vias having a position relative to said signal conductor via based upon a desired overall impedance of the interconnection structure,

wherein said signal conductor via and plurality of ground vias extend beyond said second conductive layer, and

wherein said multilayer printed circuit board further comprises a matching stub located on said second conductive layer, said matching stub comprising a prescribed length of conductive transmission line connected at a first end to said second via pad and connected at a second end to at least one of said plurality of ground vias.

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23. (original) A multilayer printed circuit board according to claim 22 wherein said multilayer circuit board further comprises at least one grounded metal layer, said at least one grounded metal layer having a ground pullback section cut away in a region surrounding said signal conductor via, said at least one grounded metal layer providing a ground return path for said first and second conductive layers.

24-25 (cancelled)

26. (original) A multilayer printed circuit board according to claim 23 wherein said cut away ground pullback section of said at least one grounded metal layer has a radius greater than the radius of said first via pad.

27-28 (cancelled)

29. (currently amended) A multilayer printed circuit board according to claim ~~28~~ 22 wherein said prescribed length of conductive transmission line introduces an inductive component to compensate for a section of said signal conductor via beyond said second conductive layer.

30. (original) A multilayer printed circuit board according to claim 22 wherein said plurality of ground vias have a diameter based upon the desired overall impedance of the interconnection structure.

31. (original) A multilayer printed circuit board according to claim 23 wherein said cut away ground pullback section is concentric with said center signal conductor via and has a radius greater than the radius of said first via pad.